

coast of the United States, which have been referred to it, it becomes practically impossible to separate it from the genus *Icelus* of Kröyer. Some of the different members of *Artedius* are more like *Icelus hamatus* than they are like each other. At present we are unable to draw any satisfactory dividing line among these species, and elsewhere (Syn. Fish. N. A., 689) we have referred all of them to *Icelus*. In the same memoir we have mentioned the specimens which here become the types of *A. fenestralis* as "Northern specimens," representing "a marked variety" of *Icelus notospilotus*.

INDIANA UNIVERSITY, October 11, 1882.

DESCRIPTION OF A NEW SPECIES OF UROLOPHUS (UROLOPHUS ASTERIAS), FROM MAZATLAN AND PANAMA.

BY DAVID S. JORDAN AND CHARLES H. GILBERT.

UROLOPHUS ASTERIAS sp. nov.

Disk almost round, a little broader than long; its length just about equal to length of tail. Anterior margins of disk nearly straight, the tip acute, slightly exserted, much less prominent than in *U. aspidurus*, longer in the male specimen than in the females. Distance from eye to tip of snout, about one-fourth length of disk and a little more than twice interorbital width. Interorbital space somewhat concave. Eyes small, much smaller than the large spiracles, the diameter about half the interorbital width. Width of mouth $2\frac{1}{6}$ in its distance from tip of snout. Teeth conic and sharp in the males, blunter and somewhat pavement-like in the females. Nostrils directly in front of angles of mouth; nasal folds forming a broad continuous flap, the edges of which are slightly fringed.

Ventrals projecting a little beyond outline of disk. Caudal spine very long, somewhat longer than snout, its insertion considerably in front of middle of tail. Caudal fin moderate, the upper lobe deepest, inserted opposite tip of caudal spine, the lower lobe beginning farther forward, the depth of the tail with caudal fin, about half the interorbital space.

Skin above everywhere rather sparsely covered with small stellate prickles, these larger and more numerous toward the median line of the back and head; wanting on the ventral fin. Males and females about equally rough. Median line of back with a series of rather strong, sharp recurved spines, 18 to 32 in number, extending from the shoulders to the front of the caudal spine, these usually becoming much larger and sharper backward, but the largest much smaller than the spines in *U. aspidurus*.

Color, light brown, without distinct markings; tail, faintly edged with dusky; lower side white.

This species is not rare at Mazatlan, where it is known as *Raia*. It is also occasionally taken at Panama.

Three females and one male specimen, from 12 to 16 inches in length, were brought from Mazatlan, and one young male from Panama.

Specimens in United States National Museum.

28204. Mazatlan, Gilbert.

29524. " "

29542. " "

29580. " "

29318. Panama, "

The species of *Urolophus* thus far known from the Pacific coast of tropical America may be distinguished by the following analysis:

- a. Anterior margins of disk nearly straight; insertion of caudal spine in front of the middle of the tail; the spine longer than snout.
 - b. Disk everywhere perfectly smooth; no spines or prickles; disk broader than long, considerably longer than tail, teeth obtuse in both sexes; length of snout less than one-fourth disk; brown above, with many yellowish spots.....HALLERI*
 - bb. Disk smooth, or with a few minute prickles; upper part of tail with a few (2 to 8) large buckler-like spines on the median line; disk slightly longer than broad, slightly shorter than tail; teeth in males acute; length of snout, about one-third disk; brown above, nearly plain.....ASPIDURUS†
 - bbb. Disk covered with small stellate prickles; a series of small spines along median line from shoulder to caudal spine; disk a little broader than long, as long as tail; length of snout, about one-fourth disk; teeth in males acute; brown above, nearly plain.....ASTERIAS
- aa. Anterior margins of disk convex; insertion of caudal spine in front of middle of tail; the spine not longer than snout; tail rather longer than body; teeth sharp in both sexes; skin beset with stellate tubercles.....MUNDUS†

NOTES ON A COLLECTION OF FISHES FROM CHARLESTON, SOUTH CAROLINA, WITH DESCRIPTIONS OF THREE NEW SPECIES.

By DAVID S. JORDAN AND CHARLES H. GILBERT.

Four weeks during the months of July and August, 1882, were spent by Mr. Gilbert in collecting and studying the fishes of Charleston and vicinity in the interests of the United States National Museum. One hundred and twenty-three species of marine fishes were observed; of these twenty one had not been previously recorded from our South Atlantic coast, nineteen being additions from the West Indies and the Gulf of Mexico.

* *Urolophus halleri*, Cooper, Proc. Cal. Acad. Nat. Sci., 1863, III, 95. Point Concepcion to Panama (Santa Barbara, San Pedro, San Diego, Mazatlan, Panama.)

† *Urolophus aspidurus* Jor. & Gilb., Bull. U. S. Fish Com., 1881, 307. Panama.

† *Urotrygon mundus* Gill. Proc. Acad. Nat. Sci., Phila., 1863, 173. Panama. (Dow collection; the type now lost.)